From wang!elf.wang.com!ucsd.edu!info-hams-relay Fri Apr 12 16:52:32 1991 remote from tosspot

Received: by tosspot (1.64/waf)

via UUCP; Sat, 13 Apr 91 10:51:42 EST

for lee

Received: from somewhere by elf.wang.com

id aa01149; Fri, 12 Apr 91 16:52:31 GMT

Received: from ucsd.edu by relay1.UU.NET with SMTP

(5.61/UUNET-shadow-mx) id AA29856; Fri, 12 Apr 91 12:01:55 -0400

Received: by ucsd.edu; id AA13743

sendmail 5.64/UCSD-2.1-sun

Fri, 12 Apr 91 07:15:58 -0700 for nixbur!schroeder.pad

Received: by ucsd.edu; id AA13712

sendmail 5.64/UCSD-2.1-sun

Fri, 12 Apr 91 07:15:41 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/

lqueue -oi -finfo-hams-relay info-hams-list

Message-Id: <9104121415.AA13712@ucsd.edu>

Date: Fri, 12 Apr 91 07:15:38 PDT

From: Info-Hams Mailing List and Newsgroup <info-hams-relay@ucsd.edu>

Reply-To: Info-Hams@ucsd.edu

Subject: Info-Hams Digest V91 #291

To: Info-Hams@ucsd.edu

Info-Hams Digest Fri, 12 Apr 91 Volume 91 : Issue 291

Today's Topics:

.....DRUM ROLL

2m Antenna (2 msgs)

50 to 75 ohm transformer??? (2 msgs)

ATV: what about PM? ATV AM/FM revisited

Call Signs

Heathkit - End of an Era?

I DESPISE ham radio operators

keyers (sorta)

License & VEC

MAJOR SOLAR FLARE ALERT

Most Offensive Scanner (2 msgs)

Re: IRV HOFF DEAD

Shuttle Packet No-Show

Tracking objects (Was Re: Explanation of Shuttle Packet Problems)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available

(by FTP only) from UCSD. Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

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Date: 12 Apr 91 13:25:00 GMT From: news-mail-gateway@ucsd.edu

Subject: .....DRUM ROLL To: info-hams@ucsd.edu

>> Give me a break. Congratulations for NOT knowing something? If I'd come in

> Rarely have I been so angered by a note in rec.anything. Your attitude is

This has been a very satisfying episode for me. I, too, was angered, so much so that I couldn't even devise a suitable reply. But then, as I read the feedback, I really felt good. There wasn't a single word of support for this attitude. The hobby's in good hands, folks. Thanks to everyone for a strong show of solidarity behind helpfulness, fraternalism, and open arms to the newcomers.

steve - W3GRG

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Date: 12 Apr 91 00:20:30 GMT

From: elroy.jpl.nasa.gov!usc!wuarchive!emory!ducvax.auburn.edu!eng.auburn.edu!

bh@ames.arpa

Subject: 2m Antenna To: info-hams@ucsd.edu

I recnetly bought an HT and a 2m/440 dual band magnetic mount anteanna for my can. My question is - if I use the HT inside can I hook the magnet mount anteanna to it and use it? If not, what kind of 2m antanna would I have to have to use indoors. Thanks in advance.

Brian Hartsfield

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Date: 12 Apr 91 03:06:00 GMT

From: agate!bionet!uwm.edu!cs.utexas.edu!helios!zeus.tamu.edu!

msw1633@ucbvax.berkeley.edu

Subject: 2m Antenna To: info-hams@ucsd.edu In article <bh.910411192030@lab20.eng.auburn.edu>, bh@eng.auburn.edu (Brian Hartsfield) writes...

>

>I recnetly bought an HT and a 2m/440 dual band magnetic mount anteanna for my >can. My question is - if I use the HT inside can I hook the magnet mount >anteanna to it and use it? If not, what kind of 2m antanna would I have to >have to use indoors. Thanks in advance.

>

>Brian Hartsfield

Yep, you sure can use the mag mount..... I do it and have very good results!

Mark S. Whitsitt, N5RJF Texas A&M University, Dept of Biochemistry

Bitnet: MSW1633@TAMSIGMA College Station, Tx. 77843-2128 Internet: MSW1633@SIGMA.TAMU.EDU (409) 845-0832

"You can't throw darts when you're empty, man" -- another Schadelism

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Date: 11 Apr 91 15:58:24 GMT

From: hpl-opus!hpnmdla!glenne@hplabs.hpl.hp.com

Subject: 50 to 75 ohm transformer???

To: info-hams@ucsd.edu

## Joseph

I use 70 ohm CATV line at home sometimes for vhf/uhf operation. When I can dedicate it to a single band an easy way to use it is by building a quarter wave section of 60 ohm line and sticking it at either end. I suppose you could use this on other bands which are an odd harmonic of the lowest one. 144/432/1296 could very possibly be achieved with a single 144 MHz quarter wave transformer since it is 3/4 and 9/4 long on the higher bands. I haven't examined multipband performance like this but single band operation has been just fine. For many applications you may only need to put the transformer at the shack end unless your antennas \*really\* are nearer 50 ohms than 75. Often seems like mine run with a 1.5:1 or 2:1 SWR so if that's the case and if they end up being higher rather than lower impedance than 50 ohms you might do just fine sith only a single coaxial transformer at the shack end.

I've made 60 ohm line out of copper water pipe and hobby store brass tubing which comes in 1/16" diameter steps. Just pick the diameter you need for air dielectric 60 ohm line and build your own section of coax. You'll probably need to make an access hole in

the outer pipe so that you can solder the center conductor to the connectors on either end. Seems I recall N fittings slipping pretty well into 1/2" water pipe.

I've also just used 70 ohm line as is at HF... Performance is fairly hard to distinguish from 50 ohm line of similar loss. At UHF it is probably worth some effort in matching though.

Glenn Elmore -N6GN-

N6GN @ K3MC glenn@n6gn.ampr.org glenne@hpnmd.hp.com

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Date: 11 Apr 91 19:44:21 GMT

From: hpl-opus!hpnmdla!alanb@hplabs.hpl.hp.com

Subject: 50 to 75 ohm transformer???

To: info-hams@ucsd.edu

In rec.radio.amateur.misc, joseph@panix.uucp (Joseph R. Skoler) writes:

>I have at my disposal 3/4 inch hardline (about 2000 feet of it) and would >love to put it to good use. The problem is, it's 75 ohm stuff.

>So, my question is: Are matching transformers made which match 50 to >75 ohms and can handle substantial power (100 watts) at UHF frequencies?

Glen N6GN recommends a 61-ohm, quarter wave matching section. This will work fine, but is not easy to fabricate. I have used a simple L-network tuner. For two meters, put a 38 nH coil in series and a 10 pF capacitor in parallel (on the 75-ohm side). I did this on the "shack" end of the coax, and just tuned the gamma match on my two meter beam to match directly to 75 ohms on the other end.

AL N1AL

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Date: 12 Apr 91 06:07:04 GMT

From: ogicse!uwm.edu!ux1.cso.uiuc.edu!phil@ucsd.edu

Subject: ATV: what about PM?

To: info-hams@ucsd.edu

smith@sndpit.enet.dec.com (Willie Smith) writes:

>>I am still interested in finding ways to enhance received TV signals by

>>using a frame (or field) averager. This would be for signals that appear >>to be under the noise level as conventionally received.

>Since what you want to do will effectively lower the frame rate, why not >digitize the image and send it (with the appropriate ECC/FEC) digitally. >There are a number of algorythms that will increase the detail of a picture >the more time you allow to go by. (Sorta like a GIF file in 'interlaced' >mode...) Or do you just want to build a better receiver?

A better receiver. I want to be able to receive both ATV and BTV (Broadcast TV) better. In both cases it would be for still frames only, such as sign-on test patterns. I don't want to make the other guy switch over to packet.

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Date: 12 Apr 91 06:14:15 GMT

From: ogicse!uwm.edu!ux1.cso.uiuc.edu!phil@ucsd.edu

Subject: ATV AM/FM revisited

To: info-hams@ucsd.edu

smith@sndpit.enet.dec.com (Willie Smith) writes:

>This means that the low frequency signals will spread out more (though they >won't get too far from the center frequency) and the high frequency signals >will produce (virtually) no sidebands at all!

But at least ONE set has to be there.

>Next, consider the spectrum of a \_baseband\_ TV signal, there's an amplitude >peak at the low frequencies and another smaller one around the color burst.

What about the effect of pre-emphasis?

> Since the deviation term in the well-known BW=2(DEV+Fmax) depends on the >\_amplitude\_ of the modulating frequency, the bandwidth of the resulting ATV >signal is going to vary in a complex manner:

>At low frequencies (which are high amplitudes) the deviation is going to be >large (and Fmax is going to be small) giving primarily BW=2(DEV), while at >high frequencies (which are low amplitudes) the deviation is going to be >small, giving primarily BW=2(Fmax). Somewhere in the middle strange things >will happen, but it seems to me that you could keep the overall 'significant

>bandwidth' (which is what, -20-something dB or -40-something dB?) within 6 >MHz without too much trouble.

Except that pre-emphasis (if used) will be increasing the amplitude at the high end.

If you really can keep it inside of 6 MHz (which is if you have an upper cutoff of 3 MHz in your video baseband) you are NOT going to get the same kind of quality as on a satellite signal which is 40 MHz between carriers on the same polarity.

>Now, maybe I haven't thought of everything, and maybe pre-emphasis will >skew the results, but it still seems like we can fit FMTV in 6 MHz >bandwidths, and use it in the 440, 900, and 1200 MHz bands. And yes, >things may get noisy on the high end, but if the color gets strange or the >fine details (what there are of them in a CCD camcorder) gets lost I'll >live with it. We'll still get the usual FM advantages (capture effect, >noise immunity, etc) on the low-frequency components of the signal.

Well I point out you can't get rid of ALL the sidebands. Go ahead and try a brick wall 6 MHz bandpass filter on your FMTV signal and just see what it does to it. Be sure the filter FOLLOWS the transmitter since the final compression can reintroduce filtered sidebands.

>I'll probably get a 900 MHz transmitter/receiver pair in the next month and >play with a TV camera and spectrum analyzer and see what I can do. Worst >case I won't be able to make it fit in 6 MHz so I'll use it for the B/W >images in my teleoperations project. B/W has \_got\_ to fit, Fmax is only >around 1.5 MHz, so 1.5 MHz deviation gives 6 MHz bandwidth with BW=2(D+F).

That should work. You should (if you can spend the \$\$'s) get BOTH FM and AM and see what the difference in quality is.

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Date: 12 Apr 91 08:17:33 GMT From: news-mail-gateway@ucsd.edu

Subject: Call Signs
To: info-hams@ucsd.edu

Lary Jack writes about OLD callsigns. There are a few of us still here. II'm KA2RC Name is Roland Cowan Then there is KA2RD Richard Doggett, KA2SF Sam Fleming (altho some call him other uprintable things), KA2SP Sue

Patterson. We are on the Island of Honshu in Japan. The calls are issued by the Air Force at Yokota Air Base. The last reg that was written stated nothing about not being able to talk to the JA's and 7J's so we work around it. I amd active on 28 MHz and 21 MHz. One of our group just left for White Sands N.M. KA2CC Charlie Carpenter he was here for 11 years. Not quite as long as Sam Flemming (he was here before the Japanese). CUL 73's

dede KA2RC ex WF4Pex DA2LO

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Date: 12 Apr 91 14:02:00 GMT From: news-mail-gateway@ucsd.edu Subject: Heathkit - End of an Era?

To: info-hams@ucsd.edu

Back when everything was point to point wiring, electronic construction was very labor intensive, and there were a lot of savings to be had in passing that labor off to the buyer in the form of kit construction. But then we went to discrete component circuit boards and on to surface mount technology, and there really aren't any savings to pass on anymore, other than bolting a frame together and plugging boards into it.

Oh, do I dream of those glorious days back in 1959 when I spent 60 hours putting my Heath Mohawk receiver together. Three crates, 75 pounds, and enough parts to keep a kid's heart beating at double speed forever! And the DX-20, the DX-35, the AR-1, ...

steve - W3GRG

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Date: 12 Apr 91 01:36:49 GMT

From: elroy.jpl.nasa.gov!lll-winken!catnip!bandy@ames.arpa

Subject: I DESPISE ham radio operators

To: info-hams@ucsd.edu

lnk10562@uxa.cso.uiuc.edu (Louis Koziarz) writes:

>There are a few ham operators in my area that seem to always jam up my >cable reception. That's probably because of cable theives in the area >using unterminated lines, but that's another post...

If they're interfering with the CABLE tv, then it's the cable company's fault, pure and simple.

I'll let you in on a little secret. Threaten them with the PUC.

- -

real address: bandy@catnip.berkeley.ca.us

last choice: lll-winken!catnip.berkeley.ca.us!bandy

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Date: 11 Apr 91 19:55:12 GMT From: blkcat!Usenet@uunet.uu.net

Subject: keyers (sorta)
To: info-hams@ucsd.edu

DF> simultaneously. He had a stroke when I was very young, and could not DF> communicate very well, but I've wondered, since I've become a little DF> more knowledgeable, if he could have still sent and received code well.

It probably depends on the stroke. I had a minor stroke 3 years ago that messed up my left side rather annoyingly and seems to have fuzzed my my memory a little, but because it happened on the right side of the brain didn't bother my speech, and seemed to have no impact on my ability to copy CW even at high speeds (big relief). Had it been on the other side, the story might be different; if nothing else it would have messed my my ability to send.

/W3PH

\* Origin: Clone Point West (1:109/421.391)

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Date: 12 Apr 91 03:46:05 GMT

From: ucselx!bionet!uwm.edu!zaphod.mps.ohio-state.edu!unix.cis.pitt.edu!dsinc!

wells!k3tx@ucsd.edu
Subject: License & VEC
To: info-hams@ucsd.edu

In article <bh.910411130907@lab20.eng.auburn.edu>, bh@eng.auburn.edu (Brian Hartsfield) writes:

- > Does the time it takes to get a licence depend on the VEC being used and if so,
- > which VEC is faster the ARRL or W5YI-VEC?
- > bH@eng.auburn.edu

The licensing delay is a function of the FCC Gettysburg workload and efficiency.

The VEC is simply a check-station and clearinghouse

and has little effect on the timing.

What's the big hurry?

K3TX W5YI contact VE

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Date: 12 Apr 91 07:50:10 GMT From: news-mail-gateway@ucsd.edu Subject: MAJOR SOLAR FLARE ALERT

To: info-hams@ucsd.edu

-- MAJOR SOLAR FLARE ALERT --

APRIL 11, 1991

Flare Event Summary
Potential Impact Assessment

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## MAJOR ENERGETIC EVENT SUMMARY

A major high-level M-class flare occurred today. The event began at 11:03 UT, peaked at an x-ray intensity of M9.5 at 11:17 UT and ended at 12:01 UT on 11 April. The event was accompanied by a 990 sfu tenflare and moderately strong radio bursts at other frequencies. No sweeps were observed from this event.

An optical confirmation of this flare was not possible due to poor seeing conditions at all active optical observatories. However, one report was received from an observatory which was able to spot a bright surge from Region 6583 (now at N09E60) sometime after the event. This leads us to believe that the flare probably originated from this region. The fact that Region 6583 produced a class M4.9/1B long-duration event earlier in the day (peaking at 06:18 UT) would support this assumption.

Surging on the northeast limb is being observed now. Additional activity appears to be ready to rotate into view. Region 6555 (which will return to view in the southeastern quadrant) is also due within the next 48 hours.

The background x-ray flux has increased to a class C2.0 level as of 11 April, and is expected to remain near or above the C2.0 level throughout the

next week. The solar flux is also climbing, as is the sunspot number.

## POTENTIAL TERRESTRIAL IMPACT ASSESSMENT

Todays major flare will not have a terrestrial impact. Region 6583 is continuing to grow and develope, and may become capable of producing more frequent major flares. At the present time, it is difficult to determine whether this region will continue to produce major flaring. It is still too close to the eastern limb to obtain reliable magnetic imaging information. This region could produce another major flare, although we believe major flaring likely will not occur for another 24 to 48 hours.

A POTENTIAL MAJOR FLARE WARNING has been issued. Although major flaring is not expected to occur for at least another 24 to 48 hours, major flares could be observed periodically over the next week or two. This contradicts the most recent STFR forecast, which was released prior to the recent developments.

The following Warning has been issued as of 11 April:

- POTENTIAL MAJOR SOLAR FLARE WARNING

Aside from this most recent major flare alert, there are no other alerts in progress at the present time.

\*\* End of Alert \*\*

Date: 11 Apr 91 20:30:57 GMT

From: orion.oac.uci.edu!ucivax!jarthur!elroy.jpl.nasa.gov!sdd.hp.com!spool.mu.edu!

news.nd.edu!mentor.cc.purdue.edu!noose.ecn.purdue.edu!en.ecn.purdue.edu!

ghg@ucsd.edu

Subject: Most Offensive Scanner

To: info-hams@ucsd.edu

In article <1594@msa3b.UUCP> kevin@msa3b.UUCP (Kevin P. Kleinfelter) writes: >Many (misguided) public officials and citizens would like to make >scanner coverage of certain frequencies illegal. (i.e. public service >bands, cellular phones, etc.)

>I'm now in the market for a scanner covering as much of the "offensive" >spectrum as possible; ideally I'd get a scanner which covered the >frequencies that are most likely to be restricted. I don't mind making >mods if I have to, but I can't handle anything really complex.

>

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>Any suggested models?
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Icom R-9000. DC to Daylight, 30 Khz to 2 Ghz (no holes) in 10 Hz steps, 1000 mems + spectrum display, all modes. Often called an "Assault Radio".

> (When scanners are outlawed, only outlaws will be informed.)

>Kevin Kleinfelter @ Dun and Bradstreet Software, Inc (404) 239-2347 >...gatech!nanovx!msa3b!kevin

>Warning: There seem to be multiple 'msa3b' nodes on Usenet, and it is >nanoVX, not nanovAx.

--ghg

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Date: 12 Apr 91 06:02:01 GMT

From: ogicse!uwm.edu!ux1.cso.uiuc.edu!phil@ucsd.edu

Subject: Most Offensive Scanner

To: info-hams@ucsd.edu

kevin@msa3b.UUCP (Kevin P. Kleinfelter) writes:

>Many (misguided) public officials and citizens would like to make >scanner coverage of certain frequencies illegal. (i.e. public service >bands, cellular phones, etc.)

>Now I'm not really interested in listening in on Joe Salesman phoning >in his orders, but I'd like to preserve my ability to receive these >bands -- especially if some joker might make it illegal.

Remember that the 6th harmonic of the 2 meter band is in one of the cellular bands, and you would want to make sure you can detect any possible interference your 2m transmitter might cause to the cellular service BEFORE it happens. This is the 2nd harmonic of 70cm, BTW.

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Date: 11 Apr 91 19:32:12 GMT

From: hpl-opus!hpnmdla!alanb@hplabs.hpl.hp.com

Subject: Re: IRV HOFF DEAD To: info-hams@ucsd.edu

In rec.radio.amateur.misc, niemi@astroatc.UUCP (Bob Niemi) writes:

>I had the pleasure of but one RTTY QSO with Irv in the mid-to-late 60's. >His spirit and energy will be hard to replace.

I had the pleasure of a LOOOONG conversation with W6FFC once back when I worked at W1AW at ARRL HQ. This would have been around 1973 or so. Irv was a pilot for United Airlines -- he had flown into the Hartford/ Springfield airport around 7 PM and drove down to Newington to see ham "Mecca."

Irv sure could talk. He, my buddy and I went straight through from around 8 PM to 7 AM the next morning, when he had to drive back to the airport to fly a plane back to California. (Pilots aren't allowed to drink, but it doesn't say anything about lack of sleep!) I'd say Irv did 90% of the talking among the 3 of us, pretty much non-stop for 10 or 11 hours, and I don't remember him ever once repeating himself.

At that time, he had recently acquired (by some semi-underhanded means) a minicomputer -- a PDP-11 I think -- that he was learning how to program. He had hooked it up to his RTTY station so that people could contact him and leave messages when he wasn't home. Sort of the first Amateur Radio bulletin board system.

Computer weenies probably know Irv principly through his public-domain CP/M and MS-DOS computer programs, but I first heard of him through his work designing demodulators for RTTY receivers. This was back in the days when commercial "demods" were giant rack-mounted tube-type machines, and Amateur units tended to low-performance 2 or 3-tube designs. Irv designed some of the first solid-state units, using 709 op-amps when they were state-of-the-art.

He will certainly be missed.

AL N1AL

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Date: 11 Apr 91 03:11:01 GMT

From: mjbtn!raider!mjb@uunet.uu.net Subject: Shuttle Packet No-Show

To: info-hams@ucsd.edu

COLE@babette.ISi.EDU (Randy Cole) writes:

>However, I think I can fairly safely conclude that the

>much hyped shuttle packet was a no-show. Does anyone know >why?. The EVA Monday was in progress during that time. >Did that preclude packet?

>To add insult to injury, at one point I tuned across 145.55 >and what to my wondering eyes appeared but a storm of >packets to and from U2MIR!

>Can anyone explain what happened?

I don't know if it is official, but... when W3XO was conduction another SAREX school experiment Monday morning (or whenever the last classroom session was held), at the end of the school session, the guys there at the Goddard ham club began to chit chat with Ken. There was a lot of QRN and QRM on 14295, but, W3XO asked Ken how the packet was going, and I could swear I heard Ken say something to the effect that it was not going well at all as they had not been able to get the packet box to key the 2 meter unit. That was iffy and all I heard on packet. But as everyone else concurs, we got \*NO\* packet the entire time.

Mark.

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Date: 11 Apr 91 18:22:54 GMT From: wshb!michaelb@uunet.uu.net

Subject: Tracking objects (Was Re: Explanation of Shuttle Packet Problems)

To: info-hams@ucsd.edu

In article <671309490.0.COLE@babette.isi.edu> COLE@babette.ISi.EDU (Randy Cole)
writes:

>hardware problem and others were wondering like I was. One of >them asked what tracking software I use. He said he had 5 >tracking programs running on his 386 PC and his Sun and he got >no less than 5 different answers. It reminds me of the old >saw that goes soething like: "The man with one clock always >knows what time it is, but the man with two is never sure...".

And his Sun! What software runs on unix. I have toyed with the idea of just cranking out some data sheets but don't know how to calculate the answers for the Kiplering elements. Does anybody know where I can get a good introduction to the math that isn't overly complex. I don't have the time to figure out how orbital mechanics really work nor the programming skill to do pretty graphics, but if an HP calculator can spit out pointing data I know my unix box can figure it out.

## Michael

- -

Michael Batchelor--Systems/Operations Engineer #compliments and complaints
WSHB - An International Broadcast Station of # letterbox@csms.com
The Christian Science Monitor Syndicate, Inc. #technical questions and reports
michaelb@wshb.csms.com +1 803 625 4880 # letterbox-tech@csms.com

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Date: 12 Apr 91 02:05:38 GMT From: ogicse!milton!whit@ucsd.edu

To: info-hams@ucsd.edu

References <1991Apr9.124118.27031@mlb.semi.harris.com>, <1991Apr9.220744.4049@milton.u.washington.edu>, <3106@ksr.com> Subject : Re: TRF Receiver

In article <3106@ksr.com> jfw@ksr.com (John F. Woods) writes:
>In <1991Apr9.220744.4049@milton.u.washington.edu> whit@milton.u.washington.edu
(John Whitmore) writes:

>>In article <1991Apr9.124118.27031@mlb.semi.harris.com>
rps@sunman.mlb.semi.harris.com (Ray Sumperyl) writes:
>>> Can anybody supply me with a schematic for a tube TRF receiver?

>> No such devices have been built by THAT name in most of a century.

>As for no one building a TRF receiver in most of a century, check out the >Ferranti ZN414 AM Receiver chip

Okay, I guess I was a little strong on that statement; what I really meant was that TRF receivers usually show up as little glue components (like in a garage door opener) rather than as a 'receiver'. Yes, there IS a place for tuned RF receivers, but conversion is the norm nowadays (and has been for quite a few years). TRF works best at low frequency (where the Q of an LC circuit offers adequate selectivity), and its only real advantage (cost) has rather been taken away by the cheap ceramic IF filters in use nowadays.

John Whitmore

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